STATE OF MINNESOTA DISTRICT COURT
COUNTY OF RAMSEY SECOND JUDICIAL DISTRICT
- -

THE STATE OF MINNESOTA,
BY HUBERT H. HUMPHREY, III
ITS ATTORNEY GENERAL,

AND

BLUE CROSS AND BLUE SHIELD OF
MINNESOTA,

PLAINTIFFS,

VS. FILE NO. C1-94-8565

PHILIP MORRIS INCORPORATED, R.J.
REYNOLDS TOBACCO COMPANY, BROWN &
WILLIAMSON TOBACCO CORPORATION,
B.A.T. INDUSTRIES P.L.C. LORILLARD
TOBACCO COMPANY, THE AMERICAN
TOBACCO COMPANY, LIGGETT GROUP, INC.,
THE COUNCIL FOR TOBACCO RESEARCH-U.S.A.,
INC., AND THE TOBACCO INSTITUTE, INC.

DEFENDANTS.

- -

VOLUME II

DEPOSITION OF

DR. TIMOTHY WYANT

AUGUST 19, 1997

8:39 a.m.

REPORTED BY: JAMES M. TRAPSKIN
RPR, CM, CALIF. CSR 8407
620 PLYMOUTH BUILDING
MINNEAPOLIS, MINNESOTA 55402

DEPOSITION OF DR. WYANT, VOLUME II, taken at the Law Offices of Robins Kaplan, Miller & Ciresi, 2800 LaSalle Building, 800 LaSalle Avenue, Minneapolis, Minnesota 55402, on the 19th day of August 1997, commencing at 8:39 a.m. before James M. Trapskin, a Notary Public, Registered Professional Reporter and Certified Shorthand Reporter.

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A P P E A R A N C E S

On Behalf of the Plaintiffs:

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BY: John Love

Thomas L. Hamlin

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* * * * *

I N D E X

EXAMINATION OF DR. TIMOTHY WYANT

* * * *

E X H I B I T I N D E X

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THE VIDEOGRAPHER: Good morning we're on the video record.

Today's date is August 19th, 1997. The time is now 8:39 A.M. This is a continuation of testimony given by Dr. Wyant, the beginning of Tape Number 5 in this deposition.

May we have introduction of counsel present today?

MR. BIERSTEKER: Peter Biersteker from Jones, Day representing R.J. Reynolds Tobacco Company.

MR. SILFEN: Tom Silfen from Arnold & Porter for Philip Morris.

MR. GINDER: Mark Ginder from Dorsey & Whitney for Defendants.

MS. STEWART: Kristen Stewart from Doherty, Rumble & Butler for Lorillard Tobacco Company.

MS. STEURY: Ellen Steury from Arnold & Porter for Philip Morris.

MR. HAMLIN: Tom Hamlin from Robins, Kaplan, Miller & Ciresi for Plaintiffs State of Minnesota Blue Cross and Blue Shield of Minnesota.

MR. LOVE: John Love from Robins, Kaplan, Miller & Ciresi for the State of Minnesota and Blue Cross Blue Shield of Minnesota.

(Defendants' Deposition Exhibit 3603 was marked for identification.)

CONTINUED EXAMINATION

BY MR. BIERSTEKER:

Q. Good morning, Doctor. The reporter has been so kind as to mark as Exhibit 3603 the table that Mr. Hamlin provided to us after we closed our session last evening, and I wanted to ask you a few questions about the table.

This exhibit reflects your analysis of the prevalence of major tobacco-related diseases among nursing home entrants NHANES from 1982 to 1992 that we talked about yesterday, right?

A. It's a summary of them.

Q. Yes. How was the disease status of the nursing home entrants NHANES determined?

A. NHANES has the diseases in the database for

entry into the nursing home.

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Q. Were any screening criteria employed?
A. I'm not sure what you mean.
Q. Well, do you use screening criteria and claims data to identify people with, say, CHD, right?
A. Excuse me, are you referring to the, the age screens and those screens?
Q. Right. And you had to have more than one medical event in which that was in the ICD-9 code, et cetera.
A. No, this is simply a summary of the ICD-9 codes appearing in the NHANES data.
Q. Now, unlike in the core model or the refined model, at least in the summary table here the disease categories are not mutually exclusive, right?
A. No, they are not mutually exclusive.
Q. So for instance, if a smoker had lung cancer and also had coronary heart disease in this Exhibit 3603, he would be entered in the row for both lung cancer and CHD, right?
A. That's correct.
Q. Now how did you define smokers for purposes of this analysis?
A. I don't recall.

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Q. Is it the same definition that you used in your main nursing home analysis presented in the report?
A. I would presume so but I don't remember.
Q. You don't remember what the definition of smoker was that you used in the main nursing home analysis in your report?
A. I believe it was anyone that was an ever-smoker. I can't recall whether it was as of the time of the original interview or as of '82.

There was some, there were a couple of issues in NHANES regarding different identifications of smoking at the time periods, and I don't remember at this moment exactly what all those, how all those things were dealt with.

Q. Was the definition of a smoker one that a person who had smoked for at least five years?
A. I, I just, just don't recall.
Q. In any event, as best as you can remember, a smoker was somebody who was either smoking at the time of the initial interview in the early 1970s or who was smoking in 1982, is

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that right?
A. That is my recollection of the main analysis, yes.
Q. Now for what age group was the analysis summarized on this table done on?
A. I don't recall.
Q. You indicated, I believe, yesterday that when you examined this issue you looked at two age groups. The first group was people above the

median age of entry into the nursing home and the second group was people below it?
A. Yes.
Q. Would this be the group of people who were above the median age for entry?
A. Well, I would, I think this is all people.
Q. This is all people.
A. Yes.
Q. There's no age criteria in here at all? It's not over 65 or some other grouping?
A. There may be, I just don't remember.
MR. BIERSTEKER: Well, it, Tom, it might be, or it might be useful to, in light of the recall problem, and I understand that that's, I'm very forgiving of that, but in light of the recall problem, it might be

useful if we had, if this was done in a spreadsheet or if there's a computer program or something that was used to build this table, it, it may be useful for us to get it and I'd appreciate that.
MR. HAMLIN: Okay, and I'll, I'll look into that --
MR. BIERSTEKER: Thank you.
MR. HAMLIN: -- and we'll get back to you.
BY MR. BIERSTEKER:
Q. In any event, if we examine this table, there were 259 nursing home entrants who were smokers. And I get that by adding the 213 and the 46 at the bottom.
A. I would -- what's your summary -- sum again?
Q. Two hundred and fifty-nine.
A. Yeah, I think that would be correct.
Q. And as I add them up, there were about 454 cases, if you look at each of the specific diseases.
If that's the case, every smoker in this group, on average, had about 1.75 smoking-related diseases.
Would that be right?

A. I'm not going to try to verify your arithmetic, but. . .
Q. But the arithmetic I did is conceptually the way you have to do it?
A. Well, I think, I think in principal what you've just stated is correct here.
Q. It, it seems to me, then, based on this data, that the occurrence -- well, most of those diseases were the, were the three, most of the cases were the three heart disease categories reflected in the chart: cerebrovascular disease, coronary heart disease and atherosclerosis, correct?
Now Doctor, I just added up the three heart disease cases for smokers and I got 319 out of the total of 454.
A. Well, I'm not sure how you just stated that. COPD is certainly a --
Q. There's a large number there, yes.
A. A large number and more for the smokers than

atherosclerosis and cerebrovascular.
Q. I understand. But my question to you was, don't the three heart diseases together, the categories that are indicated on this chart, account for the lion's share of the cases

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among the smokers?
MR. LOVE: I'll object to the form of the question. But answer if you can.
THE WITNESS: Okay. So for the smokers you've added up cerebrovascular, coronary heart and atherosclerosis.
BY MR. BIERSTEKER:
Q. Correct.
A. And your question is, if you add those three up, is it more than half of the cases for smokers?
Q. Yes. By my count, it's 319 out of 454.
A. That looks to be approximately correct.
Q. And there were very few smokers entering the nursing home who had cancer, weren't there?
A. Well, there were fewer than of the other categories.
Q. Doctor, doesn't this suggest that the -- let me try it again. Doesn't this suggest that the number of smokers who have both lung cancer/COPD and CHD/stroke, at least among these individuals, is actually pretty high?
A. I don't know see how you can draw that conclusion from this.
Q. Well, there were 213 cases of -- or, or

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individuals, rather, with tobacco-related disease who, in the smoker group who entered the nursing home, right?
A. Right.
Q. And if there were 454 cases of the different diseases, that would mean that each smoker who had a tobacco-related disease, on average, had more than two tobacco-related diseases, right?
A. Yes.
Q. Do you know what the prevalence of smoking was in this group from whatever time point you measured it, whether it was 1972 or 1982?
A. The prevalence of smoking was?
Q. Yeah, the prevalence of ever smoking in this group.
A. Well, this -- I'm not sure what you're talking about.
The people in this table were, you've obviously got a count of smokers and nonsmokers.
Q. Right. But these are the people entering the nursing home, right?
A. Yes.
Q. Okay. You, you, I take it as part of this

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analysis, looked first at people in the community represented in the NHANES survey and then followed them as they went into the nursing home over the 10-year period, right?
A. Well, we made a lot of calculations about

people during that period.
Q. Isn't that what you did in order to construct this chart?
A. To construct this chart?
Q. Yeah.
A. We looked at anybody who was in -- who entered a nursing home during this period.
Q. On Page 2 of Exhibit 3601, I believe, the, the main report -- actually, it's 3602, I think -- you record the prevalence of current or former smoking in the adult Minnesota Medicaid population as being 61.1 percent.
A. Correct.
Q. If we take that as a proxy for the smoking prevalence of people in the community from which these nursing home entrants were identified, we could compute the relative rate at which smokers and nonsmokers entered the nursing home, couldn't we?
A. Well, you could do that, but I wouldn't take

that as a reliable proxy in this situation --
Q. Well, that's why I asked.
A. -- with different age groups and different data sets.
Q. Well, do you know what the prevalence of smoking was in whatever age group you were examining here --
A. No.
Q. -- in NHANES?
A. No, I'm not as we sit here.
Q. When you did your main nursing home analysis, you used smoking prevalence data from BRFSS in order to do your computations, right?
A. That's correct.
Q. Was the smoking rate that you took from BRFSS to do your smoking analysis the smoking rate that was controlled for insurance status?
A. I can't recall right now.
Q. Well, why don't you turn to your report at Page 28. And it does indicate that smoking status was controlled for age and gender, but I don't see any reference to insurance, is that right?
A. There's no reference here.
Q. Yeah, there is. In the second --

A. Oh.
Q. -- paragraph on the page the third sentence in. It reads, quote, "The age and gender-specific expenditures are then discounted by the percentage of persons who smoke, which we derive from the BRFSS."
Do you see that?
A. Yes.
Q. I assume that you did smoking prevalence by age and gender, then.
A. That's certainly consistent with this statement. And I don't recall anything different, but I don't recall exactly what the calculation was, either.
Q. Okay. But it does not indicate here that there was any control for insurance status,

right?
A. That's correct.
Q. And then on Page 14, you report the prevalence of smoking in Minnesota, and you have all current or former smokers together being 52.3 percent of the population, right?
A. That's correct.
Q. And I'm just going to assume that those smoking prevalence numbers are correct and we

can talk about how this calculation would change if they were wrong.

But if I wanted to compute the relative rate of entry of never-smokers compared to ever-smokers, what I would do is take the number from your table of smokers entering the nursing home and divide that by the prevalence of smoking, right?

A. Well, I would regard that as a meaningless comparison.
Q. Let me just make my comparison and let me make sure that I'm doing it right.

If I wanted to compute the relative rate of entry into the nursing home for smokers and nonsmokers, I can't just take the numbers that appear in your table and compare them, can I?

A. No.
Q. I have to take into account smoking prevalence, don't I?
A. That's correct.
Q. And the way I would take into account smoking prevalence is I would divide the number of smoker entries by the prevalence of ever-smokers, correct? As a first step in

the math. Just walk through the math with me.
A. I, I can't, I can't state to what you would do, it's not what I would do in this situation.
Q. All right. How would you take into, how would you factor in prevalence if you wanted to get a relative rate of entry into the nursing home using the number of entrants you've got in your table and smoking prevalence information as reflected on Page 14 of the report?
A. I wouldn't do that.
Q. I know you wouldn't use the smoking prevalence information on 14 -- on Page 14 of the report.

But since you can't remember what the smoking prevalence is, we're going to use this as a surrogate just we can understand how the calculation would be done, okay?

MR. LOVE: Well, I'll object to the form of the question.

If you can do it that way, fine. If you can't, you can't.

BY MR. BIERSTEKER:

Q. If you have smoking prevalence information,

Doctor, and you know the number of smokers who entered the nursing home and the number of never-smokers who entered the nursing home you could compute a relative rate of entry, couldn't you?
A. If those are from different sources and computed in different ways, that's a meaningless concept.
Q. Doctor, if we assume that the split of ever smoking and never smoking was 50-50, you with me?
A. In where?
Q. In the population in the community that's the same age group as whatever age group is reflected on this chart that you can't remember.
A. Well, people in this chart are going into the nursing home at different ages. So there is no single number that's appropriate for comparison.
Q. Its an age group, however, right?
A. I'm sorry?
Q. Isn't, doesn't, aren't the people in this chart from an age group?

A. They're from an age group, yes.
Q. All right. And all the time in your analyses, in fact your entire core model is based on smoking prevalence information from an age group, isn't it?
A. That's certainly true.
Q. Was that a meaningless analysis?
A. That was a very meaningful analysis.
Q. All right. Well, we're going to do another meaningful analysis, and I'm asking you to assume that the smoking prevalence rate in the age group in the community from which these nursing home entrants came is 50-50; 50 percent were ever-smokers and 50 percent were never-smokers, okay?
A. I don't regard that as a reasonable assumption.
Q. Look, I just want to understand how the calculation would work. We can change the numbers. I want to walk through it with you, all right?
A. To make a meaningful calculation in this group, which is different from the core model, you would have to know the, the prevalence by age group compared to these

entrants.
Q. All right. Let's try it -- Mr. Silfen makes a good suggestion. Let's assume that for each and every age group the split or each and every age, if you wish, the split of smokers and never-smokers is 50-50.
A. That's a totally unrealistic assumption.
Q. Can you make the assumption or can't you? Just to illustrate --
A. One --
Q. -- how the calculation would work.
A. One can make the assumption.

Q. Fine. Make it, please. Is it made?
A. It's made.
Q. All right. Now if I wanted, then, to understand the relative rate of entry into the nursing home for individuals in this age group as a whole, I would just take the number of never-smoker entrants and the number of smoker entrants and divide, right?
A. No, I don't think that's correct.
Q. Why --
A. Because you have to, to make this calculation, you have to also separate out these people by what age group they're in.

Q. Now I asked -- I want to do the calculation for the entire group of people, not for each individual year.
A. Do --
Q. It's the same way you did it here, right, on this chart?
A. This chart was not going to relative, any relativity, except just a comparison of those who entered, what diseases the smokers had and what the nonsmokers had.
Q. Yes, but you didn't compare them for age by age, did you?
A. No.
Q. You did it over the entire group, right?
A. That's correct.
Q. All right. Well, I want to look at nursing home entry over the entire group.
And isn't it true, Doctor, that there were 415 nonsmokers who entered the nursing home from this group in the period in which you analyzed it?
A. That's correct.
Q. And there were 259 smokers, right?
A. That's correct.
Q. All right. Dividing 415 by 259, I come out

with 1.60, all right? Just assume my calculation works.
A. I'm not arguing with your arithmetic on that.
Q. All right. If that were the case and if the smoking prevalence for this age group was 50 percent, then never-smokers were entering the nursing home at a 60 percent higher rate than the never-smokers -- than the smokers, correct?
MR. LOVE: I object to the form of the question.
MR. BIERSTEKER: I'll ask the question again.
BY MR. BIERSTEKER:
Q. If the smoking prevalence is 50-50, that would mean that never-smokers were 60 percent more likely to enter the nursing home than smokers in this group, right?
MR. LOVE: I object to the form of the question. Answer if you can.
THE WITNESS: I'm sorry, can you repeat that?
BY MR. BIERSTEKER:

Q. We take our never-smoker entrants as 415.
A. Yes.

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Q. We divide by our never-smokers entrants that's 259, right?
A. Yeah.
Q. We don't have to account for prevalence because we've assumed it's 50-50, correct?
A. Okay.
Q. And doing that math, which I'll do again, I get 1.60, approximately.
Now assuming that my calculator works, does, doesn't that mean, if all of our assumptions hold, that never-smokers entered the nursing home at a 60 percent higher rate than smokers in this group?
MR. LOVE: I object to the form of the question.
THE WITNESS: Well, I just don't regard that as a meaningful calculation.
BY MR. BIERSTEKER:
Q. I know but I want you to do the calculation and tell me if I've got the answer right.
Did I do it right?
A. Well, if you assume that, that you don't need to control for sex and age and you haven't, and you've assumed these other characteristics, I don't have any problem

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with that arithmetic. I just don't think it has any substantive meaning, whatsoever.
Q. If you don't control for age other than for the age group and you don't control for gender and the smoking prevalence is 50 percent, isn't it true that the never-smokers in this group entered the nursing home at a 60 percent higher rate than the smokers?
MR. LOVE: I'll object, asked and answered.
MR. BIERSTEKER: It hasn't been answered.
MR. LOVE: He told you he agreed with the math but he didn't agree with the, the interpretation.
BY MR. BIERSTEKER:
Q. Doctor?
A. Same answer.
Q. Doctor, on Page 4 of the report where you say, "Smokers entering nursing homes during this period were far more likely than never-smokers to be suffering from lung cancer and COPD"?
A. Yes.

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Q. Now you base that on this analysis in this chart, right?
A. That's correct.
Q. And the analysis you did in this chart didn't control for age, did it?
A. No.
Q. It didn't control for gender, did it?
A. No.

Q. And you yet thought that this analysis was somehow meaningful, didn't you?
A. Yes.
Q. So why isn't my same analysis, not controlling for age and not controlling for gender and looking at the same people but just looking at the overall rate of entry into the nursing home, meaningful?
A. Those are the critical factors that go into our analysis on which we spent time identifying and which were used in the calculations.
This is a simple statement describing one aspect of these data.
Q. All right.
A. That simply says what it says.
Q. All right. And I would like to have a simple

statement analyzing these data that says what it says along the lines that I've suggested.
And that is, without controlling for age and gender and assuming a 50 percent smoking rate, isn't it true that the nonsmokers in this group entered into the nursing home at a 60 percent higher rate than the smokers? That's all.
MR. LOVE: Objection, asked and answered.
THE WITNESS: In the context of those factors, I just think it's misleading to make a simple statement like that.
BY MR. BIERSTEKER:
Q. Was your simple statement misleading?
A. No.
Q. Why not? What's the difference?
A. These are characteristics that were not considered as fundamental to the analysis; it's simply a description as it stands. Those factors were not used in this main nursing home analysis.
Q. With all due respect, that's very circular, Doctor.
I would like to do this and I would like

to have an answer to the question I asked. And I understand you may disagree with the significance of it.
But isn't it true that if you don't control for age and gender and you assume a 50 percent smoking rate in this population that the never-smokers entered the nursing home at a 60 percent higher rate than the smokers?
MR. LOVE: I'll object it's been asked and answered. And you're arguing with the witness.
MR. BIERSTEKER: I'm trying to get an answer from the witness, Mr. Love.
MR. LOVE: You're trying to get the answer you want from the witness.
MR. BIERSTEKER: I'm trying to get the truth.
MR. LOVE: Well, you got it.

THE WITNESS: I still think it would be misleading to characterize the calculation that way.

BY MR. BIERSTEKER:

Q. Doctor, do you believe that smokers entering the nursing home during this period were far

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more likely than never-smokers to be suffering from lung cancer and chronic obstructive pulmonary disease?

A. That's what the accounts show.

Q. And Doctor, don't these same data, analyzed in the same way, show that never-smokers were far more likely than smokers to be entering the nursing home during this period?

A. No, there you're talking about comparative rates.

Q. You're not? You say far more likely.

A. Well, these --

Q. Isn't that comparative?

A. -- are rates based on a denominator of people entering the nursing home. And that's what's shown in this chart.

The rates you're talking about have to do, have integral to them other rates that we're not discussing here.

Q. My denominator is different, right?

A. That's correct.

Q. Okay. What rate, though, is different?

A. The rate of smoking.

Q. Oh, the rate of smoking. But we've assumed that's 50-50. That's an easy thing to do,

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isn't it?

A. It's an easy to do, but I don't know how meaningful it is.

Q. Well, then why can't we just do it? And why can't we say, which is what the data show, that the never-smokers enter at a 60 percent higher rate if you assume a smoking prevalence of 50-50 and you do it over the entire period without controlling for age and gender. Right?

MR. LOVE: I object again. It's been asked and answered.

THE WITNESS: I think given the importance of the things we're assuming away, I just would not characterize the answer.

You can do the arithmetic and I don't have any quarrel with the arithmetic you've done. I don't think that's a proper characterization of the answer.

BY MR. BIERSTEKER:

Q. Didn't you say earlier, in explaining to me the basis of the sentence on Page 4 of Exhibit 3602, that that statement reflected what the counts show?

A. Yes.

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Q. And don't the counts also show, if you assume a 50 percent smoking rate, that never-smokers entered the nursing home at a 60 percent higher rate?

A. But you have to assume a 50 percent smoking rate.
Q. Okay. But if you do that, that calculation, that is what the calculation shows, right?
A. The calculation, I, I can't -- I do not quarrel with that arithmetic. I don't accept that as a meaningful answer.
Q. That's fine. Thank you.
You said earlier today, and I think yesterday as well, that age was an important factor affecting the nursing home entry, right?
A. Yes.
Q. There, was the age distribution of smokers and nonsmokers the same?
A. For which age distribution?
Q. Pardon me?
A. I'm sorry, what?
Q. Was the age distribution of smokers and nonsmokers that you used in the nursing home analyses the same?

A. No.
Q. But you only compared smokers and nonsmokers in your nursing home, your main nursing home analysis were the same age, right?
A. I'm sorry, could you repeat that?
Q. Your main nursing home analysis compared smokers and nonsmokers who were the same age, right?
A. Yes.
Q. If you do not control for age, then you allow smokers and nonsmokers to have different ages, right?
A. Yes.
Q. Now if smokers, as a group, tend to be younger because they smoke, shouldn't you allow the smokers to have a different age distribution?
A. Smokers are younger because they smoke?
Q. As a group, yeah.
A. What does that mean?
Q. Well, if smokers die earlier because they smoke and, accordingly, as a group are younger, shouldn't the analysis of nursing home entry rates among smokers and nonsmokers permit the smokers as a group to be younger

and not age controlled?
A. No, absolutely not.
Q. Why not?
A. Our calculations work on an annual basis in Medicaid on those expenditures that can be attributed to smoking. And those should be done on an age specific basis.
Q. When, in the refined model when a person was put, a person was first put through as a smoker, right? A BRFSS person.
A. Yes.
Q. And then that BRFSS person was put through as a never-smoker, right?
A. Yes.
Q. And when you did that, you changed the

probability that the person had for treatment of a tobacco-related disease, right?
A. Yes.
Q. Why did you do that?
A. Well, the refined model was looking at differences in those probabilities that might occur on average in groups with other characteristics similar to the BRFSS cells.
Q. Wasn't the point that smoking -- wasn't the point of doing that that a person's smoking

status affects the probability that they're going to be currently treated for tobacco-related disease?
A. Oh, boy, I certainly believe from our analysis that a person's smoking status does affect that probability. And I believe that part of our calculation to reflect that involved this BRFSS work.
Q. Right. And so when you put the person through as a smoker, you assigned him the higher probability of current treatment that's associated with smoking, right?
A. Yes.
Q. And when you put the BRFSS person through as a never-smoker, you assigned to him the lower probability that he would have current treatment for tobacco-related disease, correct?
A. Well, you're not really assigning to that BRFSS person a probability. The point of that calculation is to say if, in the people in this group, if other characteristics were like these persons, how would these relationships change.
Q. And if smokers were like never-smokers,

wouldn't they, as a group, be older?
A. That really depends on what group you're talking about.
Q. Yesterday near the end of the day we talked about what your estimates do.
And if you'll turn to Page 1 of your main report, Exhibit 3602, and it says there, just to, to give it some context, that you were attempting to determine the amount of money the Plaintiffs expended in 1978 to 1996 to purchase smoking-attributable health care services, right?
A. Yes.
Q. Now that's not the same thing as determining how much more or less the Plaintiffs would have paid for health care services from 1978 to 1996 if nobody had ever smoked, is it?
A. No, it's not the same.
Q. How does it differ?
A. This looks at the world as it was and looks at actual diseases that occurred that were attributable to smoking and calculates the costs for those. People did smoke. This analysis takes that into account.
Q. If you wanted to know how much more or less

money the Plaintiffs would have paid for health care services if nobody ever smoked, you would have to do a longitudinal analysis, wouldn't you?
A. I don't know what all you'd have to do.
Q. You would have to do a different analysis than the one that you have done, right?
A. I would think so, yes.
Q. Do you know, then, whether there would be more, whether Plaintiffs would have paid more or less money for health care services if nobody had ever smoked?
A. I have absolutely no idea.
Q. Does the analysis that you and Doctors Miller and Zeger have done tell us how the health care expenditures of the Plaintiffs would have been different if everybody stopped smoking at a certain point in time, say, 1965 or 1955?
A. No, it doesn't tell us that.
Q. Do any of your analyses tell us whether or not the Plaintiffs would have paid more for medical care if the Defendants' conduct had been different than it was?
A. Whatever the conduct was, our analysis takes

that conduct into account. And that's the only conduct it addresses.
Q. But you are not, in fact -- well, let me ask this: if the question were -- let me give you an introduction first.
There are allegations in this lawsuit, as there are, frankly, in every lawsuit I've ever encountered, that the defendant did something wrong, all right?
Do your analyses attempt to quantify the harm to the Plaintiffs because of the wrong that the Defendants allegedly committed?
A. Our analysis looks at the attributable expenditures in the world with whatever wrongs the tobacco companies may have committed.
Q. But you don't compare that world to a world in which the tobacco companies hypothetically committed no wrong, right?
A. No, I don't do that.
Q. And in, and in order to quantify the effect of the wrong, isn't that what you have to do?
A. You're asking for a legal opinion and I can't give that.
Q. Well, Doctor, you've testified in a lot of

cases.
When you compute damages in other cases, don't you compare the world as it was to the world as it should have been?
A. That's not always the case. Many times I calculate certain quantities. And to the extent that those are legally related to their own doing is, is not my province.
Q. In any event, in this case the should have been world upon which your calculation is based is not the world in which Defendants

committed no wrong, right?
MR. LOVE: I object to the form of the question.
THE WITNESS: I'm sorry, the should have been world upon which my calculations are based?
MR. BIERSTEKER: Never mind. Why don't we take a break and we'll come back.
THE VIDEOGRAPHER: The time is now 9:35, and we are temporarily going off the video record.
(A recess was taken.)
THE VIDEOGRAPHER: We're back on

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the video record. The time is now 9:49. Thank you.
BY MR. BIERSTEKER:
Q. Doctor, I had just one question to kind of wrap up what we were talking about immediately before we broke.
And that was, do you know whether Plaintiffs would have paid more or less money for health care services if Defendants had not committed the wrongs that are alleged in the Complaint?
A. No, I don't know that.
Q. Now the core model, I believe we said yesterday, was intended to be a check or a test of some kind on the refined model, is that right?
A. It was intended as a check, although I believe I said also that it's a perfectly reasonable model in its own right.
Q. How disparate would the estimates of the smoking-attributable expenditures have had to be as between the core model and the refined model for you to conclude that the refined model didn't pass the check?
A. I don't have any threshold.

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Q. I hate it when witnesses do that because now I've got to ask a bunch more questions.
If the smoking-attributable expenditures were 20 percent lower, using the core model, would that have been a cause for concern about the refined model?
A. I don't know. I haven't really thought about the context.
And if as -- you know, as a check it simply shows the difference in two different ways of doing it. As it gets, as the difference grows greater, then you begin to look at reasons why.
And I don't have any particular threshold that I could say that I would definitely or, you know, at what point I would start doing more and how much more. I couldn't tell you.
Q. Well, when you say that you would go and look at the reasons why the differences were occurring, if they were large, would the purpose of, of looking for those reasons be

to, perhaps, modify the model?
A. No, it would be to increase our understanding of the process.

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Q. So understanding why differences arise would not be something that you would take into account in possibly revising the models, is that right?
A. Well, certainly -- well, I'm not sure I quite understand the question.
But if one developed a, a better understanding of, of the processes, then I would assume that it would be appropriate to make sure that the statistical methods reflected that understanding.
Q. I guess what I'm trying to get at is you said it was a check. And what I wanted to know is if at some point you said -- if, if it had turned out, for example, that, I don't know, the, the smoking-attributable expenditures estimated by the core model were half of what had been estimated by the refined model, would you have modified in some way the refined model? That's not close enough and you want to get closer.
A. No, I have no idea what we would have done. We might have just reported these, the results, and this is where they stand.
Probably if it had been that much

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different, myself I would have tried to develop a better understanding and understand why they were different. Whether any modification was appropriate or not, I have no idea.
Q. When you imputed or filled in data, something we talked about yesterday for a brief period, did you sometimes use what are called best predicted values?
MR. LOVE: I object to the form of the question.
THE WITNESS: Well, I believe what we talked about yesterday was imputed or estimated.
BY MR. BIERSTEKER:
Q. Yeah, and I thought you used filled as -- or don't you use the term "filled in" as being similar to estimated?
A. Well, it's similar in some respects.
Q. Fine. Well, whatever words you want to use.
When you estimated missing data or filled it in or imputed it, you frequently used best predicted values, didn't you?
A. Well, we certainly filled them in using best predicted values by some commonly accepted

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measures. And I'm only qualifying this, because in the world of academic statistics there are disputes about what precisely are the characteristics of a best predicted. But. . .
Q. Your expertise is, is in statistics, isn't it?

A. That's correct.
Q. Are you an expert economist?
A. I work with economic data. And I'm familiar with a lot of economic analytic techniques that are generic to both statistics and economics. I would not call myself an economist.
Q. When you filled in or estimated missing data, did you do so conditionally on all of the available data?
A. Well, what do you mean by "available data," I guess?
Q. Well, for example, in NMES there were instances where you had to impute a seat belt and then overweight for some people, right?
MR. LOVE: I object to the form of the question.
THE WITNESS: I, I don't, I

don't know that we had to impute anything or that I would characterize it that way.
BY MR. BIERSTEKER:
Q. Well --
A. But --
Q. -- did you estimate or fill in or impute missing values for some of the people in NMES for seat belt use and being overweight?
A. I don't recall right now how missing information for those two characteristics were handled.
Q. You recall that some values were missing, I take it?
A. Well, I believe that's correct, yes.
Q. Do you know whether or not missing values were imputed, estimated or filled in when they were missing in some of your analyses?
A. I'm sorry, would you repeat that?
Q. Well, do you know if missing values for those variables were filled in or estimated or imputed in some of your analyses?
A. For those variables?
Q. Yes, sir.
A. I don't recall what was done for those two variables.

Q. When you did estimate or fill in missing values, did you do so using all of the data that you had available to you?
A. Well, certainly there were many data fields on NMES and on BRFSS that we've never looked at.
Q. So the answer is, no, you did not use all of the available data, right?
A. We, we certainly did not make use of every piece of information collected in those surveys.
Q. When you exclude variables such as exercise and diet that we talked about yesterday, aren't you assuming that they have no relationship to whatever it is you're trying to estimate?
A. Well, no, I don't think you'd be making that assumption.

Q. Well, aren't you, in effect, forcing them to have a zero coefficient?
A. You're, in effect, forcing them to have a zero coefficient if we're talking about regression and similar analyses.
But the assumptions you're making may be that the effects are minimal enough, for

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example, that it's not reasonable to include that in the equation or it may come into the equation as a nonindependent characteristic that doesn't have any effect on it. There's a number of assumptions one could be making.
Q. If you exclude a variable, isn't that the same thing as assigning that variable a zero coefficient?
A. In, we're talking about the kind of models I'm talking about, yes, excluding it is the same as assigning it a zero coefficient.
Q. When you imputed or filled in or estimated missing values, did you make any conditional independent assumptions?
A. Could you be a little more specific about what you mean by a conditional independent assumption in this context?
Q. It's a term of art in statistics, isn't it?
A. Well, that's just why I asked for you in this context.
Q. Is it a term of art in statistics?
A. It's a term of art, but in different contexts it may mean different things to different statisticians.
Q. Well, what is your understanding of what it

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means?
A. Well, I'm not sure in the current context. That's why I was asking you.
Q. Do you have any understanding of the meaning of the term "conditional indpendence"?
A. My understanding, in general, of the term would be -- well, yes, I have an understanding.
Q. And what is it?
A. I would summarize it as saying if you had three factors, you took into account one of them, and after taking into one of the account, the first one, the other two were independent, that's what I would call conditional independence.
Q. And did you make assumptions of that kind when you filled in, imputed or estimated missing values in your data sets?
A. I'm not sure. I haven't really thought about it in that manner.
Q. If you made any such assumptions, have you tested the validity of those assumptions?
A. I don't know.
Q. Have you conducted any tests of statistical significance on the core model's

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smoking-attributable fractions?
A. Statistical significance?
Q. Yes, sir.

A. I'm not quite sure what that would mean in the context of the core model.
Q. Well, have you tested to determine whether or not you can say at the 95 percent, or whatever confidence level you wanted to use, that the SAFs estimated by the core model are different than zero?
A. I have not calculated it at this point, a confidence interval for the core model results.
Q. Have you calculated a confidence interval for any part of the core model?
A. No.
Q. Now we discussed yesterday that the only effect of smoking on individuals 19 to 34 that you attempt to estimate with your models is the effect of diminished health status right?
A. Well, that's what we call the diminished health status models, yes.
Q. And yesterday you couldn't remember the SAFs for particular age/gender groups and type of

service from the diminished health status model, right?
A. I don't remember what I said yesterday --
Q. Okay.
A. -- but it's certainly true that I don't --
Q. Okay.
A. -- remember them right now.
Q. Well, I, I, I actually went and looked last night. And I looked at males and I looked at ambulatory expenditures, which is, ambulatory expenditures is a big category of expenditures, right?
A. It's a category.
Q. Well, aren't most of the expenditures that you analyzed in the refined model for hospital or ambulatory services?
A. Most of them for hospital or ambulatory?
Q. Right.
A. Combined, yes, I think those are the two biggest categories, yes.
Q. Thank you. And for ambulatory expenditures, the males 19 to 34 had a smoking-attributable fraction of 24 percent. I want you to assume that I'm right about that.
A. Okay.

Q. And I also want you to assume that the SAF for ambulatory expenditures for males 35 to 64 was one and a half percent.
Does that make any sense to you? If, in fact, those are the SAFs generated by your model?
A. Well, any model that attempts to improve the accuracy of the final result by doing conditional estimates in lots of small parts is likely to see some fluctuations.
So to some extent, the fact that, that there's any difference there doesn't mean too much.
Q. Well, I mean the SAF for males 19 to 34 for

diminished health status from smoking is more than 13 times higher than it is for males 35 to 64.
A. That's correct.
Q. How can that be?
A. Well, one thing that goes on is that, as I say, when you -- it's well known and accepted in statistics that you can improve overall estimates by making conditional estimates that are applicable to each of the parts, but in doing so you have to suffer the

consequences that occasionally some of the parts will appear high and some of them will appear low.
Q. And is that always the case, regardless of sample size?
A. The general concept applies, regardless of sample size, that the more you cut things up, the more fluctuation you're going to see in individual pieces. But if an appropriate analysis is being done, the overall result is more reliable.
Q. Did you have sample size problems in the diminished health model for any of your age/gender groups?
A. None that I would characterize as, as problems.
Q. So the source of the fluctuation that I have hypothesized but that I believe is, in fact, reflecting the actual results is not due to small sample size in the age/gender categories, right?
A. No, you can't really make that generalization. The appearance of anomalous results in groups depends on, well, depends on a number of things. But primarily it,

it -- the primary factors you look at are not only sample size in any individual groups but how many individual groups you're looking at.
And here, when you count up different services, different age and gender groups, you're looking at a lot of groups. So you have to weigh that in with the sample size and the individual --
Q. You're looking at 24 groups, right? Four service types, three age, three age, two gender?
A. It sounds right.
Q. I believe you used the term "anomalous."
Would you agree that it would be anomalous to have a 20 percent smoking-attributable fraction for diminished health status in males 19 to 34 for ambulatory care but a one and a half percent SAF for males 35 to 64?
A. It's a result, then, in many circumstances I would tend to look into further to see if there's any other understanding that could be developed.
Q. It is certainly counterintuitive, isn't it?
A. I don't know as I would use the term

"counterintuitive."
Q. Well, would you expect smoking to affect the health status of 19- to 34-year olds more than it affects the health status of 35- to 64-year olds?
A. I don't know as I'd have expectations one way or another. I'd have to think about that.
Q. You mean to tell me you've never thought about the effect of smoking on the health status of individuals in the age/gender groups analyzed by your refined model?
A. Well, yes, I have, but we've taken out a lot of currently treated disease, which is a big part of it.
And, and I'm just qualifying my answer towards we're looking at particular groups with particular characteristics and particular insurance categories. And I'm just not sure at this point what my expectation would be for some comparison of those groups.
Q. Yesterday I asked you some questions about reservations or criticisms you had of some of the data sets and I think I didn't ask about two of them, so I just wanted to follow up.

Did you have any reservations or criticisms of the NMES data?
A. Well, no data set is perfect. And every data set could be improved, I think.
NMES is a superb source of data for medical care and health expenditures. And it's entirely reasonable to do analysis of health expenditures using it.
Q. Was there any way in which you wished that the NMES data had been different?
A. Well, you can always wish that they had 30,000. I could wish for 40,000. And If they'd give me 40,000, I could have wished for 50,000. But it's certainly a, a substantial sample size.
Q. So if you could change anything about the NMES data set, you would make it bigger.
Is there anything else that you would do?
A. Well, I'm not --
MR. LOVE: I'll object to the form of the question. It misstates his testimony.
MR. BIERSTEKER: I'm not sure it does, but okay.

THE WITNESS: So what is the question?
BY MR. BIERSTEKER:
Q. If you could change the NMES data in any way to improve it, how would you do it?
A. Well, it's difficult to answer that, because in any survey you could improve almost anything because no aspect of it is perfect.
I guess if there were one thing I would do in our application, it would, it would

clearly be convenient and a more straightforward analysis if NMES was entirely done in Minnesota rather than a national.

And I guess if you gave me, you know, a genie in a bottle, I would say, yes, that's probably the one thing I would do. But that's certainly, I certainly wouldn't characterize that wish as saying, in any way shape or form, that I don't think the current NMES can be used for Minnesota.

Q. Let me ask a question with respect to BRFSS which I didn't think I asked about yesterday.

Do you have any reservations or criticisms of the BRFSS data?

A. Well, again, no data set is perfect. And

almost any aspect of BRFSS, as with any aspect of any data set, you could conjure up some way it could be improved, at least theoretically. But on the whole it's a, in, in my view, a very sound and reasonable data set on which to perform analyses.

Q. The genie has come back in the bottle and has granted you one more wish.

If you could change the BRFSS data set, how would you change it?

A. I guess in our context if I could change one thing, it would be getting the questions answered consistently in every single year so that we didn't have to do extra work to try to make everything consistent.

Q. Was it that the questions differed or the responses given differed?

A. Well, I think the questions differed.

Q. And how did you go about conforming the responses from year to year if the questions were different?

A. Well, the one I had in mind was the insurance status question which I believe was missing in two of the years.

Q. So it wasn't the form of the question, it was

the inclusion or exclusion of it?

A. Oh, I'm sorry, yes. Inclusion, consistent inclusion and wording of the questions.

Q. When the wording of the questions varied --

A. They may have, I don't recall.

Q. -- how, how did you ensure the consistency of the responses?

MR. LOVE: I'll object to the form of the question.

THE WITNESS: I -- the one I had in mind with my statement, and I'm sorry, I did say inclusion in wording. But I guess what I was thinking of was really the inclusion and exclusion of that question. I don't recall that it really changed form.

BY MR. BIERSTEKER:

Q. All right. There's a discussion in the report, which is, I believe 3602 about "Goodness of Fit" on Page 32.

Are you with me?

A. Yes.

Q. I have a threshold question. If I have questions about this section of the report, are they better directed to you or to Dr. Zeger?

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A. I'm just taking a minute to read this section.
Q. Fine, go ahead.
A. Well, Dr. Zeger is primarily responsible for this section. There's nothing in it I disagree with, but. . .
Q. That's fine, thank you.
THE WITNESS: Could we take a break for a minute here?
MR. BIERSTEKER: Yeah, sure.
THE VIDEOGRAPHER: The time is now 10:31, and we are temporarily going off the video record.
(A recess was taken and Defendants' Deposition Exhibit 3604 was marked for identification.)
THE VIDEOGRAPHER: We're back on the video record. The time is now 10:37.
This is the beginning of Tape Number 6 in testimony given by Dr. Wyant.
BY MR. BIERSTEKER:
Q. Doctor, I had one question about Exhibit 3603, the, the chart. And, and I apologize if I've asked this before; I don't think I have.

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But was this analysis done for all people in NHANES for all years?
A. This analysis, this table?
Q. Yes, the analysis that resulted in this table.
A. My recollection is it was done essentially on the same people that are included in the main analysis. But that there might have been some corrected computer program, since it might have changed the, slightly the, the count of people in that main analysis.
So if that had happened, this table wouldn't have been rerun, necessarily. That's as best as I can recall.
Q. I apologize because I've forgotten and can't seem to find it right now. But who were the people who were in the main analysis?
A. I couldn't --
Q. Actually, I think I may have found it, now. Let me ask another question and see if it works.
Were the people included in the main analysis, looking at Page 21 of Exhibit 3602, the people who were interviewed in the follow-up survey to NHANES in 1982 to '84,

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'86, '87 and 92?
A. I'm sorry. First of all, let me -- I'm in the wrong page.
Q. Oh, okay.
A. So. . .
Q. You did that on purpose, didn't you? Page

21.

MR. LOVE: Twenty-one.

BY MR. BIERSTEKER:

Q. The, the second full paragraph on the page.

A. All right. And I'm sorry, so now what is your question?

Q. My question is, were the people who were included in the main analysis all the people who were interviewed in the NHANES follow-up interviews?

A. All the people. I don't recall any exclusions, but I couldn't say right now that there might not have been one for some reason.

Q. In any event, it is your present recollection that the people included in the analysis that gave rise to Exhibit 3603 were the same people who were used in the main analysis, right?

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A. Well, that's the best of my recollection. I, I did qualify that as to --

Q. And I think I qualified my question in the same way.

But that is your recollection now, right?

A. Yes.

Q. All right. Let's turn to the next exhibit which is Exhibit 3604, and that would be your additional report.

Is the, the bottom line of this report that you think that never-smokers in Minnesota covered by private health insurance obtained through their employer have lower wages because some employees smoke?

A. Not really.

Q. Okay. What do you think the bottom line is?

A. That the costs of smoking-attributable disease in this period are partially borne by persons covered by private insurance outside the lawsuit. And a reasonable estimate of how that occurs is it, to a large extent, it comes in the form of reduced wages.

Q. Now I want to go through the data and methods portion of the report that starts on Page 3,

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so you might want to turn to that.

I take it that you first wanted to know how many adults in Minnesota are covered by private health plans, right?

A. Yes.

Q. And you didn't have all of that information, right?

A. Well, I guess this page describes my efforts at obtaining that information.

Q. Right. You were unable to obtain it for all the years in which you were interested, right? And so you filled it in when you were missing it.

A. I'm sorry, what, now, is the question?

Q. The question is, did you have a count of adults in Minnesota who were covered by private insurance plans in the years you were

examining?
A. I didn't have a complete count in any year. I had CPS data for the majority of the years.
Q. Okay. You had a survey that covered some of the years but not all of them, right?
A. The majority of them, yes.
Q. A majority of the years but not all of them, right?

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A. That's correct.
Q. All right. And for the years in which you did not have even a sample, you filled in the missing data, right?
A. On CPS?
Q. Well, it says in your report that "missing figures for all private insurance I filled in using regression methods."
A. Oh, okay.
Q. What did you fill in?
A. The, from CPS they had employer insurance in all the years for which I had CPS data. That is, estimated counts of people covered through their employer. They only had estimated counts of people covered through private plans for, oh, approximately the last half.
So to get those additional counts, I did do a regression estimate.
Q. And did you have any information about private insurance for 1978 or 1979?
A. I do not believe so.
Q. Okay. And did you fill in numbers of individuals who had private insurance in those two years?

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A. Not exactly.
Q. Well, what did you do for those two years?
A. This calculation proceeded in the sense somewhat like the other report for the span of years for which there was some CPS data, from beginning to end, all the calculations were made. And then there was a extrapolation to '78, '79 at the very end.
Q. So you estimated the number of people with private insurance in 1978 and 1979 using the information you had for other years.
A. That's -- yes, effectively, that's correct.
Q. And you estimated the number of people who had private insurance other than through their employer for the years 1980 to 1986 inclusive, right?
A. I'm sorry, would you repeat that?
Q. You estimated the number of people who had private insurance other than through their employer for the years 1980 through 1986 inclusive, right?
A. I, would you just read me those numbers again? They sounded right, but. . .
Q. Well, as I understand it, from 1980 to 1986 the --

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A. Right.
Q. -- CPS survey only asked about insurance

obtained through an employer, right?
A. Right.
Q. And you estimated the number of people who had private insurance from all sources for those years, right?
A. Yes.
Q. And so you had to estimate the number of people who had private insurance other than through their employer for the years 1980 through 1986.
A. Correct.
Q. Right. Now did you know the age/gender distribution of the adult subscribers to private insurance other than Blue Cross and Blue Shield of Minnesota for any of these years?
A. I didn't take that into account.
Q. In the first report, you estimated smoking-attributable fractions separately for each age and gender group, right?
A. Yes.
Q. And the smoking-attributable fractions were different for different age and gender

groups, correct?
A. Correct.
Q. Did you assume here that the age and distribution of participants in private health plans throughout the State of Minnesota was the same as the age and gender distribution of the participants in the Blue Cross and Blue Shield fully rated groups?
A. Well, I assumed that the participants in the Blue Cross groups that -- well, I assumed that there was -- the different plans were similar enough that I could estimate, carry out the estimates I did, assuming that the Blue Cross profile was a reasonable estimate.
Q. So did you assume, then, that the age, the average smoking-attributable fraction for the participants in the Blue Cross Blue Shield fully rated plans could apply to participants in every other private health insurance plan in the State of Minnesota?
A. Yes, that was the assumption I made here.
Q. And in order to do that, you had to take a weighted average of the separately calculated SAFs for each age and gender group right?
A. That's correct.

Q. And you used the age and gender distribution of the Blue Cross Blue Shield fully insured groups in order to do that, correct?
A. Yes.
Q. And that is, in effect, then, assuming that the age and gender distribution of the other private insurance plans in the state are the same as the distribution found in the Blue Cross Blue Shield of Minnesota fully rated groups, right?
A. Well, similar enough that using the Blue Cross data would produce a reasonable estimate.

Q. Well, if the age and gender distribution would be different the SAF for that group would be different, right?
A. That's right.
Q. Now did you know how many employees covered by other private health insurance plans in the State of Minnesota had one of your major tobacco-related diseases?
A. No.
Q. Have you reviewed any literature suggesting that participants in health maintenance organizations generally tend to be healthier

than individuals who participate in fee-for-service plans?
A. I may have, I don't recall.
Q. And here again, you assumed that the percentage of people who had a major tobacco-related disease in these other private insurance plans was the same as the percentage of people in the Blue Cross Blue Shield of Minnesota fully rated groups who had a major tobacco-related disease, right?
A. Or reasonably similar disease profiles, yes.
Q. Well, you, in fact, used the point estimate of the SAF, right?
A. Yes.
Q. So in effect you did assume they were the same.
A. I don't know how to say it any other way. If, if by what you mean the effect, they were the same as equivalent to what I say by reasonably similar in terms of being able to use the single estimate, then yes, I, I agree with you.
Q. I mean, if, if they were reasonably similar, I would expect to see a range of estimated costs. Instead, I see an estimate. Now --

A. Estimates are -- everything in our world is different and yet estimates are used all the time.
The only point I'm making here I'm not assuming every plan is absolutely identical. I am treating them like that for purposes of making this estimation.
Q. Do you know whether the other private -- well, you don't know what the other private health insurance plans spent in any year, do you?
A. No.
Q. And so you don't know whether they paid more or less for each recipient than Blue Cross Blue Shield of Minnesota paid.
A. That's correct.
Q. Do you know if the deductibles on these other insurance plans were higher or lower than they are for Blue Cross Blue Shield of Minnesota's fully rated groups?
A. No.
Q. Do you know whether the co-insurance payments were the same percentage or not for these other health insurance plans than they were

for the Blue Cross Blue Shield of Minnesota

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fully rated groups?
A. No.
Q. Do you know whether the co-insurance limits were the same?
A. No.
Q. Do you know whether the scope of coverage was different or not?
A. No.
Q. Do you know if Blue Cross Blue Shield of Minnesota covers the cost of smoking cessation programs such as those run by the American Lung Association?
A. I don't know.
Q. Do you know whether any private insurer in the state does?
A. No.
Q. If it's more costly to provide private health insurance to smokers, do you know why Blue Cross Blue Shield wouldn't cover smoking cessation programs?
A. That's not something I've thought about.
Q. Do you know if any of these other private insurance plans or HMO or fee-for-service or preferred provider type plans?
A. I'm sorry, I --

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Q. Do you know -- well, included in the other private insurance would be health maintenance organizations, right?
A. Correct.
Q. Included in the other private insurance plans would be fee-for-service type plans, correct?
A. I would assume so.
Q. And included would also be preferred provider type plans, right?
A. Yes.
Q. What type of plan -- let me start over.
The estimate that you made for Blue Cross Blue Shield's fully insured groups was made for fee-for-service type plans, right?
A. A particular fee-for-service type plan, yes.
Q. Do you know whether, whether any -- do you know whether or not any of these other private plans charged smokers a higher premium than they charged to nonsmokers?
A. No.
Q. Some health insurance plans do charge differential premiums depending on smoking status, don't they?
A. I believe that some do.
Q. Is there any reason why a private health

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insurance plan couldn't be structured to charge smokers with any increased health care costs they might incur?
A. I couldn't answer that, I don't know. There may be legal, there may be business reasons that affect that. I really don't know.
Q. Do you know if Blue Cross Blue Shield of Minnesota charged differential premiums to participants in its fully insured groups

based on smoking status?
A. No one could identify such a group when I asked that question.
Q. Do you think the State of Minnesota should recover any extra money paid by never-smokers for private health insurance because the private insurers failed to charge a differential premium?
A. I don't have any opinion on that.
Q. Does that make any sense to you?
A. I haven't thought about it.
Q. Are the tobacco companies to blame for the failure of private insurers to charge a differential premium, assuming that one were justified?
MR. LOVE: I'll object to the

form of the question. Answer if you can.
THE WITNESS: I don't have any opinion on that, either.
BY MR. BIERSTEKER:
Q. You say in your report that it's sensible to think of increased health costs incurred by smokers in any given year that you've estimated to be thought of as a wage penalty?
A. Yes.
Q. To the extent there's a wage penalty on never-smokers, is there a wage windfall for smokers?
A. I don't know. I've not really looked at smokers in this analysis.
Q. To the extent there is a wage penalty imposed on never-smokers, how does that harm the State of Minnesota?
A. I don't know. I don't have an opinion on that.
Q. Now in the second paragraph on Page 3 of Exhibit 3604, it says you estimated the total annual smoking-attributable expenditures per covered adult.
Does that mean that you assume that the per capita smoking-attributable expenditures

that you estimated for Blue Cross Blue Shield of Minnesota applied to all the other private health insurance plans in the state?
A. It means that I think that smoking-attributable percentage was a reasonable estimate for those other plans as well.
Q. Now you said "percentage" and I asked amount.
A. Oh, I'm sorry.
Q. And the, and the reason I asked amount is as I understood your earlier testimony you didn't have total dollars to apply a percentage to. So let me ask the --
A. Oh.
Q. -- question again.
A. Please do. I'm sorry.
Q. Did you a assume that the per capita smoking-attributable expenditures, not the percentage but the actual dollars that you estimated for Blue Cross Blue Shield of

Minnesota applied to all the other private health insurance plans in the state?
A. I said that those actual dollars were a reasonable estimate for the other plans, yes.
Q. Do you think that that assumption can be made

to a reasonable degree of statistical certainty?
A. This is a far simpler analysis than the other one.
Q. I know.
A. And that is clear and you need to take that into account.
With the understanding that this is a simpler analysis, I believe that there's a general similarity, and I'm assuming that here between plans such that that number can be used.
Q. Doctor, you say on Page 1 of your report that the estimates here are made to a reasonable degree of statistical certainty.
Do you think that?
A. Yes.
Q. On what basis?
A. I used accepted data sources. I used accepted methods. I made assumptions that were clearly laid out here that I think are similar to the kinds of assumptions that I see made by analysts like myself all the time and on which decisions are made. And I think all the those things form the basis of my

opinion.
Q. Have you empirically validated any of the assumptions that you've made?
A. I've made no additional calculations other than those here to validate these figures.
Q. So then since I don't see any calculation here to validate any of the assumptions we've been talking about, I take it you didn't do any, right?
A. Well, other than assessing them against the general level of analyses that I see in my experience.
Q. Well, in your experience, is the age and gender distribution of participants in private insurance plans the same in every plan?
A. I have no reason to believe they're the same, but I have every reason to believe that in many instances other analysts would take a plan in the State of Minnesota as an estimate that one could apply to achieve this purpose here.
Q. You know, I guess implicit in this analysis is an assumption that the estimate of per capita annual costs attributable to smoking

estimated by your joint report with Doctors Zeger and Miller is correct, right?
A. It certainly assumes that that is a reasonable estimate for Blue Cross Blue Shield.

Q. Well, you also assume, since you used the same smoking-attributable expenditures for every plan on a per capita basis, that it's a reasonable estimate for every other plan, right?
A. In the context of this particular analysis yes.
Q. Now you next estimate the percentage of adults in Minnesota covered by private insurance who smoke, right?
A. That's correct.
Q. And for some years you used the Minnesota BRFSS data.
A. Correct.
Q. Was the smoking prevalence information that you used for participants in private health insurance plans in the state broken out by age and gender?
A. That I used? No.
Q. And it also wasn't broken out by disease

status, right?
A. That's correct.
Q. Now for some years you didn't have a survey of the percentage of adults covered by private insurance in Minnesota who smoked, right?
A. That's right.
Q. And in those years, you used what?
A. I estimated those using national health interview survey data.
Q. For what did you control when you estimated that missing data?
A. Nothing.
Q. Now you next assumed, as I read this paragraph, that the smoking-attributable expenditures per capita were equally distributed across all smokers and never-smokers insured by private insurance, right?
A. Can you say that again?
Q. Well, it's, it's, it's in your report. Let me read the sentence and then --
A. Okay.
Q. -- I'll ask you what it means.
You say, quote, "Under the assumption

that smoking-attributable costs were equally distributed across all smokers and never-smokers."
A. Yes.
Q. Okay. What do you mean by that?
A. For example, if there's no great tendency of smokers to appear in plans with high premiums and nonsmokers with low premiums.
Q. Now --
A. Or vice versa. Excuse me, that was an example, but. . .
Q. And to the extent you want to characterize this as a wage penalty, you're assuming that the wage penalty is the same for smokers and nonsmokers?
A. Well, I did this on the nonsmokers. I don't

see why the effect on wages would be any different, given the assumptions here.

Q. Now I guess one of the questions I had is, again returning to this phrase, you assumed that, quote, "smoking-attributable costs were equally distributed across all smokers and never-smokers"?

A. Yes.

Q. Do you mean all smoking and nonsmoking

employees, or all smoking and nonsmoking persons covered by private insurance?

A. The assumption being used here relates to all private insurance.

Q. So it's all persons covered by private insurance?

A. Well, I mean I, adults in the age ranges I spoke about here, yes.

Q. So if a smoker is the employee and he has four dependents, none of whom smoke, have you included a wage penalty in your computations for those nonsmoking dependents?

A. No, I don't believe so.

Q. Well, now, I'm confused. I'm going to have to go back.

Were the smoking-attributable expenditures in this analysis averaged over employees or were they averaged over beneficiaries of the private --

A. Oh, I'm sorry.

Q. -- health insurance?

A. I misunderstand. This analysis applied to the expenditures for subscribers and their adult dependents. And then it was averaged over the subscribers.

Q. So did you do an estimate of smoking prevalence among individuals who were employed and covered by private insurance?

A. Could you read that again or ask that again?

Q. Yeah. I, well, as I understood it, your smoking prevalence was just for all adults in the State of Minnesota, right, or maybe all adults covered by private insurance, I can't remember?

A. Adults 19 to 64 covered by private insurance.

Q. And that was true whether or not the person was the employee who was the subscriber, right?

A. Correct.

Q. Did you do an estimate of smoking prevalence among the employees who were the subscribers?

A. I'm not understanding your question here. Perhaps you could ask the previous one again. I, I didn't --

Q. Did you assume that the percentage of people who smoke, who are covered by private insurance, is the same as the percentage of individuals who are employed and have private insurance from their employer?

A. I'm very sorry, I'm going to have to ask you

to ask that again.

And I'm not trying to be difficult here, I'm having trouble --

Q. I --

A. -- tracking through this.

Q. I understand. I mean, it seems to me -- let me, I'll, I'm going to do a long soliloquy and so Mr. Love can object. But I want to kind of tell you what I'm going at.

It, it would seem to me if you wanted to distribute the smoking-attributable expenditures that you estimated for each dependent across the people who actually were working and obtained the private insurance that what you'd want to have is the prevelence of smoking among the people who were employed, not the people who were covered.

Now, as I understand the analysis you did, you used the percentage of people who smoked who were covered by private insurance in the State of Minnesota, right?

MR. LOVE: Well, I'll object. But answer the question.

MR. BIERSTEKER: This is like a

tag team.

THE WITNESS: I did use the percentage of people who were covered as, of -- well, I forget. What was the question?

BY MR. BIERSTEKER:

Q. The smoking prevalence for the people who were covered.

A. I, I used the smoking percentage of people who were covered as an estimate of the smoking percentage for both the employees and their adult dependents.

Q. Yes, I know. But then you averaged, as I -- did you not average the smoking-attributable expenditures only across the people who were employed and had private insurance? The subscribers.

A. Yes. The, in effect, average cost.

Would you, could you say exactly more clearly what you mean by that?

Q. Well, let me take it step by step and see if we can walk through it. And this is my understanding. If I've got it wrong, tell me and then I'll ask you how you did it.

You first assumed that the per capita smoking-attributable expenditures for every

person covered by private insurance in the State of Minnesota was the same as that which you had estimated for Blue Cross Blue Shield, right?

A. Yes. I did make separate estimates for adult dependents and subscribers from Blue Cross Blue Shield.

Q. All right. And then you must have got, simply by multiplying by the number of dependents you've estimated and the number of subscribers you've estimated, a total smoking-attributable expenditure for all

private insurance other than Blue Cross Blue Shield in the State of Minnesota.
A. Yes.
Q. But that's not the same thing as the wage penalty on never-smokers, right?
A. I'm not sure.
Q. Well, it's the total smoking-attributable expenditures or your estimate of it for private insurance in the state, right?
A. For the group we're talking about, yes.
Q. Right. And to the extent that that smoking-attributable expenditure comes out of wages, it comes out of the wages of smokers

and nonsmokers, right?
A. Yes.
Q. And isn't what you've estimated here the portion of those smoking-attributable expenditures that comes out of the wages of the nonsmokers?
A. Yes.
Q. So to determine that portion, you had to divide the total smoking-attributable expenditures that you estimated by something, right?
A. Well, I don't think that's quite the way it worked. What I did was I calculate dollars per person, and then take the percentage of persons who were smokers.
Q. Okay. And was that percentage based upon the percentage of people who were subscribers who smoked, or was it the percentage of people who were covered who smoked?
A. It was the percentage of people who were covered.
Q. So now you assumed that the percentage of people who were subscribers who smoked was the same as the percentage of people who were covered who smoked, right?

A. For purposes of estimation, yes.
Q. Thank you. On Page 4 of your report you cite to and discuss an article by somebody named Gruber, it's in the first full paragraph on the page and it's the last sentence or second, the last two sentences.
Do you see that?
A. The Gruber or the Gruber and Krueger?
Q. No, just Gruber by himself.
A. Yes.
Q. And for those folks who are reading this transcript without this exhibit in front of them, I would like to quote part of one of the sentences here.
You say that, quote, "When states mandated insurance companies to provide maternity benefits, the wages of young female employees, the primary beneficiaries of the legislation, fell by an amount that equalled the expected cost of the new benefit." Close quote.
Did I do that right?
A. Yes.

Q. Okay. So in the Gruber analysis, the entire cost of the new benefits were imposed on the

class of employees, young females, who were most likely to get those benefits, right?
A. That's correct.
Q. The costs in the Gruber article were not spread equally over all employees, right?
A. No.
Q. Yet here you assume that the increased health costs you estimate for smokers are borne equally by everybody, not just the smokers, right?
A. That's correct.
Q. Do you know whether or not the assumption that you've made is correct?
A. I think the assumption that I've made is reasonable.
Q. Have you ever examined smoking prevalence data by income?
A. Have I examined it?
Q. Pardon me?
A. Have I examined it?
Q. Yeah.
A. I have not made any explicit examination.
Q. Well, do you know whether or not smokers tend to make less money than nonsmokers?
A. I think they tend to make less money than

nonsmokers.
Q. Isn't it possible that the higher health insurance costs, if any, for smokers are reflected in their lower wages just as in the Gruber article, the higher costs of maternity leave were reflected in lower wages for young females?
A. I believe insurance programs have typically dealt with maternity leave and maternity benefits separately. So I'm not sure that there's any real concordance here.
Q. You mean employers offer one insurance plan for health benefits generally and then a separate plan for maternity benefits?
A. It's my recollection that historically maternity benefits were treated differently from other benefits in many situations, but I don't have any more recollection than that.
Q. Have you empirically validated in any way your assumption that any increased health care costs for smokers are shared equally by all employees?
A. I've made no explicit validation of that.
Q. Have you made any implicit validation of that?

A. Other than as I stated earlier that, in my general experience, I think in a simple estimate analysts would take something as Blue Cross and use that to make estimates of the sort I've made here.
Q. Well, have you looked at the wages of the Blue Cross Blue Shield employees?
A. No.

Q. So you don't know even there whether or not any increased health care costs for smokers is borne by the smokers or all the employees as a group, right?
A. I don't know that, no.
MR. LOVE: Peter, if we could get a break in the next 10 minutes.
MR. BIERSTEKER: Well, we could take one now, if you like. It's about 11:35. Why don't we take a short break and then go for maybe another 45 minutes and break for lunch?
MR. LOVE: All right.
MR. BIERSTEKER: All right.
THE VIDEOGRAPHER: The time is now 11:33, and we are temporarily going off the video record.

(A recess was taken.)
THE VIDEOGRAPHER: We're back on the video record. The time now is 11:50.
BY MR. BIERSTEKER:
Q. Great. Doctor, I want to understand a little better what this analysis suggests.
In this analysis, private insurers like Blue Cross Blue Shield of Minnesota do not pay any increased costs even if it costs more to provide health insurance to smokers, right?
A. Increased interest costs, is that the question?
Q. No, increased in the -- let me, let me start it over again.
You haven't presented here in this report any penalty to private insurers, assuming that that might arise if smokers have higher health care costs than nonsmokers, right?
A. That's correct insofar as the allocation to wages is a reasonable estimate of how the dollars flow.
Q. Well, is it?
A. I believe so.

Q. So the insurer, himself, or itself, is not harmed if smokers cost more, right?
A. Well, I don't know what you mean by "harm" necessarily. I certainly have not made any allocation of smoking-attributable dollars to insurers here in any explicit way.
Q. Right. And, and in fact, you assume it's reasonable not to allocate smoking-attributable dollars to insurers, correct?
A. No, I don't know as I'd quite say it that way.
And within the context of this analysis, I have limited or suggested that the costs do end up in the form of wages.
Q. Right. And therefore the costs are not borne by private insurers, nor are they borne by employers, right?
A. In the context of this analysis, that's

essentially what I've said.
Q. Okay. And you think that that is a reasonable analysis, correct?
A. Yes.
Q. Okay. And the reason you think that those costs end up passing through the insurer and

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passing through the employer and resulting in lower wages is what?
A. I'm sorry?
Q. What's the reason why you think those costs reasonably are passed through the insurer and passed through the employer to the employees?
A. Well, what I've laid out here.
Q. Okay. And is what you've laid out that you think that the employer's total wage and fringe benefit bill is set by the market?
A. That's basically the assumption going here, yes.
Q. And so in that circumstance, if health insurance costs increase for whatever reason, the employer will still pay the same total wage and benefit dollars in total, right?
A. That's, I think that's basically the assumption in this analysis here.
Q. Right. And so what the employer must do is reduce the cost of other fringe benefits or reduce wages themselves, right?
A. It seems to be the pattern that's evidenced by these articles.
Q. If fringe benefit costs were lower for whatever reason, in your analysis wages would

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go up, right?
A. Well, there are many -- this is a simplified version of one economic scenario, I think, within this version. That is a reasonable statement.
There are obviously lots of other things that could change and other circumstances where that might not be true.
Q. But you think that this simplified version of one economic scenario is a reasonable one.
A. In the context of what I've done here, yes.
Q. What are the other things that, what are the other things that could change or other circumstances where that might not be true?
A. I don't know any off the top of my head. Just being careful to find out the limitations of what I'm doing here, and certainly there could be more complicated situations if other things changed, as well as something changed, and I don't know what the circumstances would be.
Q. And I suppose it's the employer who determines the wages and the fringe benefits that are paid to different employees, right?
A. Well, I guess in analyzing these things

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there's a sense in which employers make the decisions and a sense in which market and business factors result in those things happening.

Q. I guess what I'm driving at is, the distribution of any increased health care costs that an employer incurs among the employees is something that could be changed by the employer.
A. Well, they -- again in the sense they could be changed, but the employer is constrained by various business and market realities.
Q. Fair enough. In other words, what you're saying is, if the employer wanted smokers to bear the entire estimated increased health care costs that smokers incur, he could pay smokers less than never-smokers, right?
A. Well, I think it's virtually the same answer. There's a sense, I suppose, in which an employer could do that, but they're just constrained by not only business and market but I would presume also by legal realities in doing that. And I certainly don't know what all those are.
Q. Well, I don't know what the legal reality is,

either.
But if we put that to one side, what you're saying is if an employer were to do that, he might not be able to attract the employees that he wanted.
A. That could be one consequence.
Q. Now if we assume, as you've done here, that any increased health care costs attributable to smoking are borne equally by smoking and nonsmoking employees, then at least a portion the smoking-attributable expenditures are paid for by the smokers, right?
A. In this sense, yes.
Q. Now the only fringe benefit cost you analyze in your additional report is for health care.
A. That's correct.
Q. And, in fact, it's, it's limited to the, the four categories of health care, I suppose: Ambulatory, hospital, prescription drug and home health?
A. That's correct.
Q. But there are other externalities that could come into play as between smokers and nonsmokers in the employment context, right?
A. That's certainly possible.

Q. Is it reasonable to assume that smokers and nonsmokers have the same pension costs?
A. I have no idea.
Q. Well, you read Dr. Manning's book, right?
A. Yes.
Q. What did his analysis show with respect to pension costs?
A. I have no recollection.
Q. If smokers, as a group, live less long than nonsmokers, won't their pension costs be lower?
A. I don't know. I presume that depends on a number of factors. I haven't looked at pension costs.
Q. What factors would it depend upon?

A. I have no idea. That's why I don't know whether it would be the same.
Q. Why would it be any different than health insurance costs?
A. Well, I don't know why it would be the same as health insurance costs, I have not looked at pensions.
Q. Well, I guess in that respect where you say in your report on Page 1 that you have looked at total external costs of smoking that you

haven't really done that, then.
A. I'm sorry, where are you?
Q. Bottom, bottom of Page 1.
A. Well, I think it says, "The total external costs as described above."
Q. Ahh. So it's not the ternal -- the total external costs, it's the total estimated external costs for health insurance in any one year, right?
A. Well, in each of the years under consideration there are additional health care costs imposed to pay for smoking-attributable diseases.
Q. All right. But just as in the joint report that you submitted with Doctors Miller and Zeger, that's an annual estimate, is that right?
A. That's correct.
Q. If, in fact, smokers have lower pension costs, I want you just to assume that with me.
A. Okay.
Q. Won't never-smokers enjoy higher wages in the context of your analysis because of that?
A. I have no idea how pension costs are imposed

or how vesting works or what laws affect them, I, I just don't know.
Q. Well, and you also have no idea how private insurance for any of these private insurers work or what laws affect it or anything else about them, do you?
A. I know that they're all health insurance plans; that they're all in Minnesota, and I've made estimates based on my knowledge of a health insurance plan in Minnesota to estimate the others during an equivalent time period.
Q. And you also know that these are all pension plans and that they're all pension plans in Minnesota.
Is there anything about health insurance plans that you know that you don't know about pension plans?
A. I think the whole second report goes into making very detailed calculations that relate to particular health plans in Minnesota.
Q. All right. And it makes very detailed calculations based upon a host of assumptions, many of which we reviewed earlier, right?

A. The second report? Or --
Q. The additional report. Let's call it that.
A. The additional report. The additional report relies on many assumptions.
Q. And you can make the same kinds of assumptions with respect to pension plans, right?
A. Well, in a very general sense, the same kinds of assumptions but having spent much -- in fact no time thinking about it, I don't know what difference there would be or what particular assumptions you would make.
Q. Okay. Let me ask the question this way. Just assume for a moment that smokers have lower health insurance costs, okay? Are you with me?
A. Uh-huh.
Q. If smokers have lower health insurance costs than never-smokers, do nonsmokers enjoy a wage boost?
A. I don't know. I haven't thought about that.
Q. Why wouldn't the analysis be symmetrical? In the context of the analysis you've done, why wouldn't that be true?
A. Well, I don't know, it may be true. I simply

have said I haven't thought about it.
Q. Why wouldn't it be true?
A. I don't know.
Q. Didn't Dr. Manning in his book analyze the total external costs of smoking to society?
A. I believe that was one of his intents, yes.
Q. And he examined a whole range of external costs, didn't he?
A. Yes.
Q. And he included medical care costs for example, right?
A. That's correct.
Q. He included nursing home costs, right?
A. I believe so.
Q. And included pensions, right?
A. I have no reason to dispute that.
Q. Didn't he conclude that after considering a whole range of external costs, as well as excise taxes paid by smokers, that smokers more than pay their own way?
A. He may have concluded that in the context of his study on the things he studied for the kinds of payers he was talking about.
Q. Well, do you remember whether he concluded that or not?

A. He may have, I don't recall right now.
Q. Taxes in Minnesota are higher than -- well, let me, it may be true. That statement may be true too, but let me put it another way.
Excise taxes on cigarette products are higher in, in Minnesota than they are in almost any other state, right?
A. I have no idea.
Q. Dr. Manning's analysis was published in his book, right?
A. That's correct.

Q. It was also published, a summary of it, in the "Journal of the American Medical Association," right?
A. There was. I don't know if it was a summary, or there were a couple of excerpts or related articles, yes.
Q. And the "Journal of the American Medical Association" is a peer reviewed publication, right?
A. Yes.
Q. Wasn't his analysis also reviewed by the Congressional Research Service?
A. I don't recall; it may have been.
Q. Why isn't Dr. Manning's analysis dispositive

of the issue whether smokers pay their own way after taking into account all of their external costs and the excise taxes they pay?
A. Dispositive of what?
Q. Whether there's any net external costs after you take into account all of the things he took into account, plus excise taxes?
A. I don't know whether it's dispositive or not. I've focused on other estimates of other health cost scenarios and I've not made a comprehensive attempt to look at the additional literature along with Dr. Manning's that tries to address the things that, that he talks about in his book.
Q. Well, I thought you told me yesterday you had systematically examined the scientific literature on smoking and health care costs. Is that not true?
A. I've systematically reviewed it, and I have focused on those articles that relate to what I did that that's summarized in these reports.
Q. Well, isn't the whole point of what you did in your additional report to suggest that there are external costs of smoking borne by

individuals in the State of Minnesota who are never-smokers?
A. Costs of a particular sort at a particular time.
Q. Okay, let me ask it this way, then: do you know whether or not examining the full range of external costs of smoking and the excise taxes that smokers pay if smokers cost never-smokers money or save them money?
A. I've not made any attempt to look at that question, I don't know.
Q. Are you continuing to work on your additional report?
A. I'm not doing anything right now. I don't have any plans to at the moment, but I presume that that could change depending on what happens with things beyond my control.
Q. I take it you're satisfied with it as is.
A. I'm satisfied with it as a very simple report. If it were suggested, for example, that certain things would make it a stronger

analysis, I'm not saying there aren't ways that could be made more precise. It is a simple report.

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Q. Would you submit this report as it exists now for publication to a peer review journal?
A. No.
MR. BIERSTEKER: Why don't we take a break now but not a break for lunch because I may be very close to being done.
MR. LOVE: Okay.
MR. BIERSTEKER: Why don't we take five minutes. We'll assess the situation and then we'll either --
MR. LOVE: Tell us what --
MR. BIERSTEKER: -- wrap it up or we'll break for lunch. Fair enough?
MR. LOVE: Okay.
MR. BIERSTEKER: Thanks.
THE VIDEOGRAPHER: The time is now 12:19 and we're temporarily going off the video record.
(The noon recess was taken.)
* * * *

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AFTERNOON SESSION
1:28 P.M.
THE VIDEOGRAPHER: We're back on the video record. The time is now 1:28 p.m.

CONTINUED EXAMINATION
BY MR. BIERSTEKER:
Q. Doctor, does the analysis in your additional report apply equally to Blue Cross and Blue Shield of Minnesota?
A. Apply in what sense?
Q. Well, let's break it down into pieces, then.
Do the employees of the employers covered by Blue Cross Blue Shield Minnesota's fully rated groups bear a wage penalty equal to the estimated increased health care costs incurred by smokers?
A. Well, as you know, the first report was carried out to a great level of detail and this one was simpler.
And in keeping with that, to make statements about Blue Cross, I would probably want to go into some more detailed investigation to check on the sense in which at Blue Cross payments made by Blue Cross and

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by employers to them and then the effect on the employees might be different. I have no reason to believe that it is different.
Q. All right. If you do apply the analysis contained in your additional report to determine who ultimately bears the burden of the estimated increased health care costs

incurred by smokers, those costs would be incurred by the employees covered by the Blue Cross Blue Shield fully rated groups, right?

A. Would you say that again, please?

Q. No, we'll have to read it back.

MR. BIERSTEKER: If you would, please.

(The previous question was read by the court reporter.)

THE WITNESS: If I apply the same analysis, I would expect that costs associated with smoking-attributable diseases that were paid by Blue Cross and then by employers, that simplified analysis would, I would, would show, as far as I know, that the wages would decrease.

BY MR. BIERSTEKER:

Q. And a portion of such a decrease in wages

would be borne by those employees who smoke, right?

A. Their wages would decrease.

Q. And some of it would be decreased wages for employees who smoke, right?

A. That's correct.

Q. And to the extent that a differential premium were charged to smokers, they would absorb a further portion in the form of an increased premium, right?

A. I have not really looked at differential premiums. I don't know if there's anything else that would affect that. I don't know.

Q. Well, the analysis in your additional report assumes that there is no differential premium charged, correct?

A. That's correct.

Q. If smokers do pay a higher premium, would you agree that the costs of that, of that amount, whatever it is, should not be included in a damage estimate?

A. No, I have no opinion on that.

Q. Well, you estimated here in your additional report the wage penalty on never-smokers only, didn't you?

A. That's correct.

Q. You didn't include the wage penalty incurred by the employees who smoke in that estimate, did you?

A. No.

Q. So why would you include in the damage estimate increased premiums paid by smoking employees?

A. Now what do you mean by a "damage estimate," now?

Q. All right. Isn't that what you've done in your additional report?

A. The additional report looked at the portion of costs associated with smoking-attributable diseases that are being paid for by subscribers to private plans outside the case who were not smokers.

Q. Well, is that not a damage estimate?

A. It's -- I've calculated what I've calculated and that's the cost.
Q. And you calculated the cost that you estimate, estimated is incurred by never-smoking employees, right?
A. That's correct.
Q. So if you're going to do the same thing in a

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situation where there is a differential premium, you would not include the differential premium paid by smokers in your estimate, would you?
A. If I knew that such premiums existed and had data on them here, I probably would not include them in this estimate.
Q. Can you articulate for me any circumstances in which you would include it in the estimate?
A. Not right now.
Q. Does Blue Cross Blue Shield of Minnesota charge a higher premium to smokers in any of its fully rated groups?
A. Not that I could determine.
Q. Do you know whether any private health plan in Minnesota charges smokers a higher premium for health insurance?
A. I don't know any that does.
Q. Is that something that you've investigated?
A. No.
Q. To the extent that there exists a wage penalty on never-smokers, is there also a wage windfall for smokers?
A. I don't know what you mean by that.

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Q. Doctor, is there a difference in your mind between higher smoker premiums and nonsmoker discounts?
A. Well, there's certainly a difference.
Q. Okay. Well, then I have to ask a couple more questions.
Do you know whether Blue Cross Blue Shield of Minnesota offers nonsmoker discounts to subscribers in any of its fully rated groups?
A. Not that I know of.
Q. The same question with regard to other private health insurance plans?
A. The same answer.
Q. Okay. Does your additional analysis also cover individual health insurance plans?
A. Yes.
Q. Do you know whether individual health insurance plans in the State of Minnesota offer either a nonsmoker discount or a higher, or impose a higher premium on smokers?
A. No.
MR. BIERSTEKER: I have no further questions.

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I'm not sure, though, about Mr. Silfen.
MR. SILFEN: I've got a couple.

EXAMINATION

BY MR. SILFEN:

Q. Dr. Wyant, I am Tom Silfen. We met at the beginning of the deposition.

Take a look at Page 1 of your report.

A. Which one? Excuse me.

Q. Your old report, the one we talked about yesterday as opposed to your new report that we talked about today.

Now the very first sentence of the report tells us why you were retained, right?

A. Yes.

Q. And you talked about that earlier with Peter, correct?

A. Yes.

Q. Okay. And what it says here is that you were returned -- retained and I'll quote, "to determine the amount of money that the state and Blue Cross extended in 1978-1996 to purchase attributable health care services."

Do you see that?

A. Yes.

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Q. Now do you believe that you did calculate the amount of money that the State and Blue Cross Blue Shield expended on health care services from 1978 to 1996 because people smoked?

A. Because people smoke?

Q. Yeah, because people smoked. Is there some difference between smoking-attributable and because people smoke?

A. I would not term smoking-attributable diseases because people smoke.

Q. Really? Smoking-attributable diseases are not because people smoked.

What are they because of?

A. They're smoking-attributable diseases. There's --

Q. What is the difference between smoking-attributable diseases and diseases caused by smoking?

A. These are diseases caused by smoking.

Q. Okay. And so they're smoking, they're diseases that occurred because people smoked, right?

MR. LOVE: Objection, asked and answered.

MR. SILFEN: Well, come on.

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BY MR. SILFEN:

Q. Are they diseases --

MR. LOVE: You come on.

BY MR. SILFEN:

Q. -- that occurred because people smoked?

A. Well, in each year we look at the differential between smokers and nonsmokers, and the, through all these analyses look at the difference. And in, in each year those smoking-attributable diseases are caused by people smoking.

Q. Okay. Now, you also said, though, that you did not calculate the amount that the state would have saved on the same health care

expenses if people had not smoked, right?
A. I believe that's correct.
Q. Aren't they the same thing?
A. No.
Q. Let me get it straight. You calculated the health care costs incurred because people smoke, but you didn't calculate the health care costs that would have been saved if people did not smoke.
Have I got it right?
A. That's correct.

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Q. Okay. What's the difference?
A. People did smoke. We looked at the costs that were incurred as a result of the fact that they did smoke. We looked at the people who were there. We looked at their costs. And we looked at each year, and we looked to see which diseases could be attributable to smoking.
Q. I know what you looked at. I want to know why the two computations, in your view, should have a different result, or do you think they're the same?
A. I don't know.
Q. Do you think they are different? Do you think they would get a different result, or do you assume they would get the same result?
A. I think if you do different things you never get precisely identical results.
Q. But you should get just about the same result?
A. I have no idea.
Q. Is there some difference between those two computations? What is the difference, what are the different factors that you see coming into play between the two computations?

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A. Where no one ever smokes, you have to make speculative assumptions about what the world would be like without their smoking.
In our analysis, we don't make those.
Q. I see.
A. That's my view.
Q. And so you did not want to analyze what would be different in a world without smoking, right?
A. What I set out to analyze was exactly what I laid out right here.
Q. I just want the answer to this question: you did not wish to analyze what the world would be like without smoking, right?
A. It was never an issue that I was looking at.
Q. Why? Who decided that what you would look at was how many costs were incurred because people smoked, not what costs would have been saved if people had not smoked? Who decided that?
A. The question that was laid out is as stated right here in the report.
And then I determined in --
Q. Well, the question --
A. -- in consultation with my colleagues --

Q. Well, I understand --
A. -- how best--
Q. -- that.
A. -- to answer that question.
Q. Who laid out that question?
MR. LOVE: Let him finish the answer.
BY MR. SILFEN:
Q. Who, who laid out that question? That's the issue?
MR. LOVE: Have you finished your answer yet?
THE WITNESS: Now I'm --
BY MR. SILFEN:
Q. Who laid out --
A. -- confused.
Q. -- issue?
MR. LOVE: Well, let him -- read back the rest of the answer so he can finish it, please.
THE WITNESS: We were retained to do this.
BY MR. SILFEN:
Q. So the lawyers told you what question to answer, is that it?

A. They asked us to determine the amount of money that the Plaintiffs expended in this time period to purchase smoking-attributable health care services.
Q. Then you took it that you were going to answer that question and no other, right?
A. That's correct.
Q. Now Peter asked you earlier some questions about controlling for age. And I think he said that when you don't control for age, you allow smokers and nonsmokers to have different ages, and I believe you agreed with that proposition, correct?
A. Well, I'm not sure in what context we're talking about.
Q. All right. Then let me ask the questions again.
When you do not control for age --
A. Yes.
Q. -- as in your analysis of nursing homes and lung cancer, okay?
A. Excuse me.
Q. Nursing homes and disease, the analysis that you looked at before?
I'll get the exhibit, if you want me to.

All right, it's Exhibit 3603?
A. Yes.
Q. You did not control for age, right?
A. On this exhibit?
Q. Yes.
A. No.
Q. Okay. And when you do not control for age, you allow the subjects you're comparing, smokers and nonsmokers, to have different ages, right?

A. That's correct.
Q. And when you do control for age, you specify that they have the same ages, right?
A. Yes.
Q. I thought you were going to take the world as you found it.
Why would you control for age and make smokers and nonsmokers have the same age?
A. In this?
Q. Yes.
A. This was a simple summary of numbers. And as I testified, we looked at this with respect to age as well.
Q. So if we wanted to take the world as we find it and not change anything, I take it we

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would not control for age, right?
A. It all depends on exactly what you're analyzing.
Q. Well, I, you told me --
A. If you're making a simple statement that, which is related to this exhibit, that the people entering nursing homes during this period that had the characteristics we talked about here, that's an absolutely correct statement.
Q. I'm after a general proposition, now.
You told me that your mission was to take the facts just as they are and not change any, am I right? You weren't going to change the world, you were going to take the word as it were, smokers or smokers (sic) and you were going to see what the state expended, isn't that right?
A. That's correct.
Q. Okay. If that's true, you wouldn't control for age, would you? Because when you control for age, you change smokers and you make them the same age as nonsmokers right?
A. No, that's an absolutely incorrect statement.
Q. It isn't? I thought you agreed with me that

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when you control for age, you make the smokers and nonsmokers the same age.
A. Well, then let me clarify my answer.
When you control for age, you look at the differentials for smokers compared to similar nonsmokers matched up on the basis of age.
Q. You make them the same age, right?
A. You don't make them the same age.
Q. You assume those --
A. You look at those people who are there who are nonsmokers who are at an age and you look at the people who are there who are smokers at the same age.
Q. But you assume that they have the same age distribution, right?
A. No.
Q. You don't?
A. I, maybe I'm misunderstanding --
Q. So when you --
A. -- your question.

Q. So when you control for age you, do not assume that the two groups you're controlling for, you're observing have the same age distribution, is that your testimony?

A. I'm sorry, would you repeat that?
Q. Well, let me ask it directly: when you control for age, do you assume that the two groups you're observing have the same age distribution?
A. No.
Q. You do not?

MR. SILFEN: Okay. I have no more questions.

MR. LOVE: Is that it?

MR. SILFEN: That's it.

THE VIDEOGRAPHER: The time is now 1:54, and this concludes Dr. Wyant's testimony.

MR. SILFEN: I think maybe he wants to change his testimony if you give him a chance.

MR. LOVE: No, I don't think so.

THE VIDEOGRAPHER: The time is now 1:54 and this concludes the testimony of Dr. Wyant. We're off the video record.

(The deposition was adjourned.)

* * * *

STATE OF MINNESOTA)
) SS:
COUNTY OF HENNEPIN)

BE IT KNOWN THAT I, JAMES M. TRAPSKIN, took the DEPOSITION OF DR. TIMOTHY WYANT - VOLUME II;

THAT, I was then and there a notary public in and for the County of Hennepin, State of Minnesota;

THAT, I exercised the power of that office in taking said deposition;

THAT, by virtue thereof I was then and there authorized to administer an oath;

THAT, said witness, before testifying, was duly sworn to testify to the truth, the whole truth, and nothing but the truth, relative to this action;

THAT, said witness reserved the right to read and sign the deposition;

THAT said deposition is a true record of the testimony given by the witness;

THAT, I am neither attorney nor counsel for, nor related to or employed by any of the parties to this action in which this deposition is taken and, further, that I am not a relative or employee of any attorney or counsel employed by the parties hereto, or financially interested in this action.

WITNESS MY HAND AND SEAL this _____ day of

_____ 1997.

____
JAMES M. TRAPSKIN
RPR, CM, CALIFORNIA CSR NO. 8407
Notary Public, Henn. County, Minn.
My Comm. expires January 31, 2000

DEPOSITION CORRECTION SHEET

CASE TITLE: MINNESOTA TOBACCO LITIGATION
DEPOSITION OF: DR. TIMOTHY WYANT - VOLUME II
DATE TAKEN: AUGUST 19, 1997
REASON FOR CHANGE A: To Correct Transcription Error
B: To Correct Spelling Error
C: To Correct Testimony

PAGE	LINE	DESIRED CHANGES	REASON
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Deponent's Signature______________________________

Subscribed and sworn to before:_____________________
a Notary Public, County of ________________, State of
______________________ on ______________________ 1997.

Return to: James M. Trapskin
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